

Pediatric Injuries: Behavioral and Developmental Factors		
Age group	Contributing factors	Resulting risks
Infant	Completely dependent on caregiver; requires constant supervision; unable to communicate orally; explores by putting objects in mouth; rapid changes in motor ability and mobility	Falls when left unattended; suffocation; choking on small items; child abuse; electrical burns to mouth; burn-related injuries from house fires
Toddler, preschooler	Curious and impulsive; puts objects into mouth; improved motor ability and mobility; likes to explore environment; higher center of gravity; imitates adult behavior without knowledge of potential dangers; requires constant supervision	Falls from stairs; scald burns; drowning incidents; child abuse; poisonings; passengers in motor vehicle crashes
School-age child	Improved motor ability and mobility; increased independence; may recognize dangerous situations but lacks judgment to make safe decisions; unable to assess speed of oncoming traffic	Pedestrian injuries; bicycle injuries; playground injuries
Adolescent	Dynamic period of emotional and physical change; greatly influenced by peers; curious, likely to engage in risk-taking behavior, experimentation with alcohol and other drugs; has feelings of immortality; increased strength and coordination; may lack experience in decision-making skills; imitates behavior of older adolescents and adults; increased involvement in sports and recreational activities; increased independence; increased incidence of depression	Motor vehicle injuries; sports injuries; injuries from bicycling, skateboarding, in-line skating; drug abuse; violence-related injuries; suicide and suicide gestures

■ **TRIPP** HANDOUT

Pediatric Injuries: Anatomic and Physiologic Factors	
Area	Contributing factors
General	Children have a large surface area compared with adults and therefore lose body heat more easily. Also, rapid growth rates mean children's coordination and motor skills may be poorly developed in relation to their physical size.
Airway	In children, the airway is smaller, more flexible, and more easily obstructed. The tongue is larger relative to the jaw.
Breathing	Respiratory rates decrease with age and may vary due to excitement, fear, anger, fever, or pain. Stress may double the respiratory rate. Higher respiratory rates increase exposure to airborne toxins such as smoke from house fires. Infants younger than six months do not readily breathe through their mouths.
Head	A child's head is large and heavy relative to the body, resulting in a higher center of gravity, which makes falls more likely. The head usually hits first in a fall or car crash.
Mouth	Chewing mechanism is not fully developed, leading to greater risk of aspirating such foods as popcorn, nuts, or snack chips.
Neck	An infant's neck is short and chubby, making it difficult to feel a carotid pulse and to intubate. Overextending an infant's neck can block the airway. The pivot point for neck movement is higher than in an adult. Strangulation can occur in a crib or high chair.
Chest and lungs	The rib cage is less rigid, more easily compressed than an adult's. Children have a decreased risk of rib fractures but an increased risk of damage to underlying organs.
Abdomen and pelvis	Abdominal wall is poorly developed and internal organs are not well protected by the rib cage. Organs are large in relation to the abdominal cavity. Higher intestinal absorption increases the likelihood of poisoning from swallowed toxins.
Back, spine, and bones	Children grow rapidly, and muscular coordination may not keep up with growth. Bones are porous and flexible. Stress causes spiral fractures and splintering.
Skin	Skin is thinner than an adult's. Third-degree burns occur at lower temperatures.

■ **TRIPP** HANDOUT

Sample Project Planning Worksheet				
Objectives	Necessary steps	Who will carry out	Target dates	Evaluation data
Establish a group to discuss and plan the project	Invite members from relevant agencies and committees	Fire station #10	April 5–15	List of attendees, minutes of meeting
Project: Target and evaluate effectiveness of a smoke detector giveaway program for low-income housing residents	Based on housing authority and fire department records, select two neighborhoods with low-income families and high incidence of calls; one neighborhood will receive free smoke detectors; the second will receive a flyer and coupon for a smoke detector	Fire station #10, housing authority rep, coalition members	April 15–30	Fire department records showing number of calls; housing authority records showing ratio of low-income families in target neighborhoods
Distribute 50 smoke detectors to first neighborhood; mail coupons and flyers to second neighborhood	Select crew and establish protocol for site visit and installation of smoke detectors in first neighborhood; mail flyers to second neighborhood	Fire station #10, coalition members	May 1–30	Protocol for site visits; list of addresses visited; mailing list for coupons and flyers
Track effectiveness of program	Tally number of coupons redeemed by second neighborhood; tally number of fire calls from the two groups, before and after project; compare data from both sites	Fire station #10, coalition members	June 1–July 30	Record of how many detectors were distributed and coupons redeemed; record of fires in target neighborhoods
Submit final report describing project, what was learned, and what was accomplished	Collect and analyze statistics, solicit feedback from coalition members, and write report	Fire station #10	Sept 1	Copy of final report; record of community leaders and agency supervisors who received it